

RECEIVED PCT/TO 04 JAN 2005

## WHAT IS CLAIMED IS:

1. A method for interoperating a first station using a first communication  
5 scheme and comprising a first coder and a first decoder with a second station  
using a second communication scheme and comprising a second coder and a  
second decoder, wherein communication between the first and second stations  
is conducted by transmitting signal-coding parameters from the coder of one of  
the first and second stations to the decoder of the other of said first and second  
10 stations, said method comprising:

receiving a request to transmit the signal-coding parameters from said  
one station to the other station using a communication mode designed to reduce  
bit rate during transmission of said signal-coding parameters;

- in response to said request, dropping a portion of the signal-coding  
15 parameters from the coder of said one station and transmitting to the decoder of  
the other station the remaining signal-coding parameters; and

regenerating said portion of the signal-coding parameters and decoding,  
in the decoder of said other station, the signal-coding parameters.

- 20 2. A method as defined in claim 1, wherein receiving a request  
comprises:

receiving a request to transmit the signal-coding parameters from said  
one station to the other station using a half-rate communication mode.

- 25 3. A method as defined in claim 1, wherein the first communication  
scheme is CDMA2000 VBR-WB and the second communication scheme is  
AMR-WB.

4. A method as defined in claim 1, wherein decoding the signal-coding  
30 parameters comprises:

operating the decoder of said other station in a full-rate mode.

REPLACED BY  
ART 34 AMDT

5. A method as defined in claim 1, wherein regenerating said portion of the signal-coding parameters comprises:

randomly regenerating said portion of the signal-coding parameters.

5

6. A method as defined in claim 1, wherein:

dropping a portion of the signal-coding parameters comprises dropping fixed codebook indices; and

10 regenerating said portion of the signal-coding parameters comprises randomly regenerating the fixed codebook indices.

7. A method as defined in claim 1, wherein:

15 dropping a portion of the signal-coding parameters from the coder of said one station comprises inserting an identification of the communication mode; and

transmitting the remaining signal-coding parameters comprises transmitting to the decoder of said other station the communication mode identification along with the remaining signal-coding parameters.

20

8. A method as defined in claim 1, wherein:

dropping a portion of the signal-coding parameters from the coder of said one station comprises dropping fixed codebook indices and inserting an identification of the communication mode; and

25 transmitting the remaining signal-coding parameters comprises transmitting to the decoder of the other station the communication mode identification along with the remaining signal-coding parameters.

9. A method as defined in claim 1, comprising, in the coder of said one station:

30 performing a fixed codebook search to determine a fixed codebook excitation; and

using the determined fixed codebook excitation for updating an adaptive codebook content and filter memories for next frames.

10. A method for interoperating a first station using a first communication  
5 scheme and comprising a first coder and a first decoder with a second station  
using a second communication scheme and comprising a second coder and a  
second decoder, wherein communication between the first and second stations  
is conducted by transmitting signal-coding parameters related to a sound signal  
from the coder of one of the first and second stations to the decoder of the other  
10 of said first and second stations, the method comprising:

classifying the sound signal to determine whether the signal-coding  
parameters should be transmitted from the coder of said one station to the  
decoder of the other station using a first communication mode in which full bit  
rate is used for transmission of the signal-coding parameters;

15 receiving a request to transmit the signal-coding parameters from the  
coder of said one station to the decoder of the other station using a second  
communication mode designed to reduce bit rate during transmission of the  
signal-coding parameters;

when classification of the sound signal determines that the signal-coding  
20 parameters should be transmitted using the first communication mode, and  
when the request to transmit the signal-coding parameters using the second  
communication mode is received, dropping a portion of the signal-coding  
parameters from the coder of said one station and transmitting to the decoder of  
the other station the remaining signal-coding parameters using the second  
25 communication mode.

11. A method as defined in claim 10, wherein receiving a request  
comprises:

30 receiving a request to transmit the signal-coding parameters from the  
coder of said one station to the decoder of the other station using a half-rate  
communication mode.

REPLACED BY  
ART 34 AMDT

12. A method as defined in claim 10, wherein:

dropping a portion of the signal-coding parameters comprises dropping fixed codebook indices.

5

13. A method as defined in claim 10, wherein:

dropping a portion of the signal-coding parameters from the coder of said one station comprises inserting an identification of the second communication mode; and

10 transmitting the remaining signal-coding parameters comprises transmitting to the decoder of said other station the identification of the second communication mode along with the remaining signal-coding parameters.

14. A method as defined in claim 10, wherein:

15 dropping a portion of the signal-coding parameters from the coder of said one station comprises dropping fixed codebook indices and inserting an identification of the second communication mode; and

20 transmitting the remaining signal-coding parameters comprises transmitting to the decoder of the other station the identification of the second communication mode along with the remaining signal-coding parameters.

15. A method as defined in claim 10, further comprising regenerating said portion of the signal-coding parameters and decoding, in the decoder of said other station, said signal-coding parameters into the sound signal.

25

16. A method as defined in claim 15, wherein regenerating said portion of the signal-coding parameters comprises randomly regenerating said portion of the signal-coding parameters.

30 17. A method for transmitting signal-coding parameters from a first station to a second station, comprising:

REPLACED BY  
ART 34-AMDT

in one of said first and second stations, coding the sound signal in accordance with a full-rate communication mode;

receiving a request to transmit the signal-coding parameters from said one station to the other station of said first and second stations using a second  
5 communication mode designed to reduce bit rate during transmission of said signal-coding parameters;

in response to the request, converting the signal-coding parameters coded in full-rate communication mode to signal-coding parameters coded in the second communication mode; and

10 transmitting the signal-coding parameters coded in the second communication mode to the other of said first and second stations.

18. A method as defined in claim 17, wherein receiving the request comprises:

15 receiving a request to transmit the signal-coding parameters from said one station to the other station using a half-rate communication mode.

19. A method as defined in claim 17, wherein converting the signal-coding parameters coded in full-rate communication mode to signal-coding  
20 parameters coded in the second communication mode comprises:

dropping a portion of the signal-coding parameters.

20. A method as defined in claim 17, wherein converting the signal-coding parameters coded in full-rate communication mode to signal-coding  
25 parameters coded in the second communication mode comprises:

dropping a portion of the signal-coding parameters from the coder of said one station and inserting an identification of the second communication mode.

21. A method as defined in claim 17, wherein:

30 converting the signal-coding parameters coded in full-rate communication mode to signal-coding parameters coded in the second communication mode

REPLACED BY  
ART 34 AMDT

comprises dropping fixed codebook indices and inserting an identification of the second communication mode; and

transmitting the signal-coding parameters coded in the second communication mode to the other of said first and second stations comprises  
5 transmitting to the other station the identification of the second communication mode along with the remaining signal-coding parameters.

22. A method as defined in claim 19, further comprising regenerating said portion of the signal-coding parameters and, in the decoder of said other station,  
10 decoding said signal-coding parameters.

23. A method as defined in claim 22, wherein regenerating said portion of the signal-coding parameters comprises randomly regenerating said portion of the signal-coding parameters.  
15

24. A system for interoperating a first station using a first communication scheme and comprising a first coder and a first decoder with a second station using a second communication scheme and comprising a second coder and a second decoder, wherein communication between the first and second stations  
20 is conducted by transmitting signal-coding parameters from the coder of one of the first and second stations to the decoder of the other of said first and second stations, said system comprising:

means for receiving a request to transmit the signal-coding parameters from said one station to the other station using a communication mode designed  
25 to reduce bit rate during transmission of said signal-coding parameters;

means for dropping, in response to said request, a portion of the signal-coding parameters from the coder of said one station and transmitting to the decoder of the other station the remaining signal-coding parameters; and

means for regenerating said portion of the signal-coding parameters and  
30 the decoder of said other station for decoding the signal-coding parameters.

REPLACED BY  
ART 34 AMDT

25. A system as defined in claim 24, wherein the request receiving means comprises:

means for receiving a request to transmit the signal-coding parameters from said one station to the other station using a half-rate communication mode.

5

26. A system as defined in claim 24, wherein the first communication scheme is CDMA2000 VBR-WB and the second communication scheme is AMR-WB.

10 27. A system as defined in claim 24, comprising means for operating the decoder of said other station in a full-rate mode.

28. A system as defined in claim 24, wherein the means for regenerating said portion of the signal-coding parameters comprises:

15 means for randomly regenerating said portion of the signal-coding parameters.

29. A system as defined in claim 24, wherein:

20 the means for dropping a portion of the signal-coding parameters comprises means for dropping fixed codebook indices; and

the means for regenerating said portion of the signal-coding parameters comprises means for randomly regenerating the fixed codebook indices.

30. A system as defined in claim 24, wherein:

25 the means for dropping a portion of the signal-coding parameters from the coder of said one station comprises means for inserting an identification of the communication mode; and

the means for transmitting the remaining signal-coding parameters comprises means for transmitting to the decoder of said other station the communication mode identification along with the remaining signal-coding parameters.

30

REPLACED BY  
ART 34 AMDT

31. A system as defined in claim 24, wherein:

the means for dropping a portion of the signal-coding parameters from the coder of said one station comprises means for dropping fixed codebook indices and means for inserting an identification of the communication mode;  
5 and

the means for transmitting the remaining signal-coding parameters comprises means for transmitting to the decoder of the other station the communication mode identification along with the remaining signal-coding parameters.  
10

32. A system as defined in claim 24, comprising, in the coder of said one station:

means for performing a fixed codebook search to determine a fixed codebook excitation; and  
15

means for updating an adaptive codebook content and filter memories for next frames using the determined fixed codebook excitation.

33. A system for interoperating a first station using a first communication scheme and comprising a first coder and a first decoder with a second station using a second communication scheme and comprising a second coder and a second decoder; wherein communication between the first and second stations is conducted by transmitting signal-coding parameters related to a sound signal from the coder of one of the first and second stations to the decoder of the other  
20 of said first and second stations, the system comprising:

means for classifying the sound signal to determine whether the signal-coding parameters should be transmitted from the coder of said one station to the decoder of the other station using a first communication mode in which full bit rate is used for transmission of the signal-coding parameters;  
25

means for receiving a request to transmit the signal-coding parameters from the coder of said one station to the decoder of the other station using a  
30

REPLACED BY  
ART 34 AMDT



second communication mode designed to reduce bit rate during transmission of the signal-coding parameters;

means for dropping, when classification of the sound signal determines that the signal-coding parameters should be transmitted using the first communication mode and when the request to transmit the signal-coding parameters using the second communication mode is received, a portion of the signal-coding parameters from the coder of said one station and transmitting to the decoder of the other station the remaining signal-coding parameters using the second communication mode.

34. A system as defined in claim 33, wherein the request receiving means comprises:

means for receiving a request to transmit the signal-coding parameters from the coder of said one station to the decoder of the other station using a half-rate communication mode.

35. A system as defined in claim 33, wherein:

the means for dropping a portion of the signal-coding parameters comprises means for dropping fixed codebook indices.

36. A system as defined in claim 33, wherein:

the means for dropping a portion of the signal-coding parameters from the coder of said one station comprises means for inserting an identification of the second communication mode; and

the means for transmitting the remaining signal-coding parameters comprises means for transmitting to the decoder of said other station the identification of the second communication mode along with the remaining signal-coding parameters.

37. A system as defined in claim 33, wherein:

**REPLACED BY  
ART 34 AMDT**

the means for dropping a portion of the signal-coding parameters from the coder of said one station comprises means for dropping fixed codebook indices and means for inserting an identification of the second communication mode; and

5 the means for transmitting the remaining signal-coding parameters comprises means for transmitting to the decoder of the other station the identification of the second communication mode along with the remaining signal-coding parameters.

10 38. A system as defined in claim 33, further comprising means for regenerating said portion of the signal-coding parameters and the decoder of said other station for decoding said signal-coding parameters into the sound signal.

15 39. A system as defined in claim 38, wherein the means for regenerating said portion of the signal-coding parameters comprises means for randomly regenerating said portion of the signal-coding parameters.

20 40. A system for transmitting signal-coding parameters from a first station to a second station, comprising:

in one of said first and second stations, a coder for coding the sound signal in accordance with a full-rate communication mode;

25 means for receiving a request to transmit the signal-coding parameters from said one station to the other station of said first and second stations using a second communication mode designed to reduce bit rate during transmission of said signal-coding parameters;

means for converting, in response to the request, the signal-coding parameters coded in full-rate communication mode to signal-coding parameters coded in the second communication mode; and

30 means for transmitting the signal-coding parameters coded in the second communication mode to the other of said first and second stations.

REPLACED BY  
ART 34 AMDT

41. A system as defined in claim 40, wherein the request receiving means comprises:

5 means for receiving a request to transmit the signal-coding parameters from said one station to the other station using a half-rate communication mode.

42. A system as defined in claim 40, wherein the means for converting the signal-coding parameters coded in full-rate communication mode to signal-coding parameters coded in the second communication mode comprises:

10 means for dropping a portion of the signal-coding parameters.

43. A system as defined in claim 40, wherein the means for converting the signal-coding parameters coded in full-rate communication mode to signal-coding parameters coded in the second communication mode comprises:

15 means for dropping a portion of the signal-coding parameters from the coder of said one station and means for inserting an identification of the second communication mode.

44. A system as defined in claim 40, wherein:

20 the means for converting the signal-coding parameters coded in full-rate communication mode to signal-coding parameters coded in the second communication mode comprises means for dropping fixed codebook indices and means for inserting an identification of the second communication mode; and

25 the means for transmitting the signal-coding parameters coded in the second communication mode to the other of said first and second stations comprises means for transmitting to the other station the identification of the second communication mode along with the remaining signal-coding parameters.

REPLACED BY  
ART 34 AMDT

45. A system as defined in claim 42, further comprising means for regenerating said portion of the signal-coding parameters and the decoder of said other station for decoding said signal-coding parameters.

- 5        46. A method as defined in claim 45, wherein the means for regenerating said portion of the signal-coding parameters comprises means for randomly regenerating said portion of the signal-coding parameters.

REPLACED BY  
ART 34 AMDT.